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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,710

02/21/2004

Jindong Sun

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EXAMINER

KRUSE, DAVID H

ART UNIT

PAPER NUMBER

1638

NOTIFICATION DATE

DELIVERY MODE

02/04/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPDOCKET@THOMPSONCOBURN.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/783,710	<b>Applicant(s)</b> SUN ET AL.	
	<b>Examiner</b> David H. Kruse	<b>Art Unit</b> 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8,9,14-16,19 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,9,14-16,19 and 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Terminal Disclaimer***

1. The terminal disclaimer filed on 11 August 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 10/870,189 has been reviewed and is accepted. The terminal disclaimer has been recorded.

## **STATUS OF THE APPLICATION**

2. The Examiner has reexamined the Paul Chomet Declaration filed under 37 CFR 1.132, filed on 23 May 2008 to address the rejections under 35 USC 112, first paragraph, set forth in the Office action mailed 20 November 2007. On page 2 of the Declaration, in Table 1, the Declaration does not explain the meaning of the terms "NEU", "NA" or "Screened". The Declaration does not explain what promoter A, B, C, D or E refer to. It is unclear what the black bars in the Table represent, or if they are obscuring information.

3. The Examiner restates the rejection under Written Description, and sets forth a new rejection under Scope of Enablement as outlined below.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8, 9, 14-16, 19 and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. At claim 8, it is unclear which

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crop plant imparts water deficit tolerance in the screening process step. It is suggested that at the end of the claim the phrase -- imparted by the transcription factor -- be inserted to more clearly and distinctly claim the subject matter which applicant regards as the invention. Claims dependent from claim 8 are also indefinite because they do not obviate the indefiniteness of claim 8.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 8, 9, 14-15 and 25-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants claim a method of imparting water deficit tolerance to a crop plant by crossing a first transgenic crop plant that contains recombinant DNA which expresses a transcription factor having at least 50% identity to SEQ ID NO: 1.

Applicants describe a transgenic soybean plant with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA which expresses a transcription factor having the amino acid sequence of SEQ ID NO: 1 at page 12, lines 25-29.

Applicants do not describe transgenic plants with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA

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which expresses a transcription factor having at least 50%, 80% or 90% identity to SEQ ID NO: 1. Applicants do not describe a common structural feature that describes the common specific function of provide the water-deficit-tolerance trait. Hence, it is unclear that Applicants were in possession of the invention as broadly claimed.

8. Claims 8, 9, 14-16, 19 and 25-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of imparting water deficit tolerance on a dicotyledonous crop plant by crossing a first transgenic dicot crop plant, with a second, wherein the first dicot crop plant contains recombinant DNA which expresses a transcription factor having the amino acid sequence of SEQ ID NO: 1 does not reasonably provide enablement for a method using monocot plants, or transgenic plants with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA which expresses a transcription factor having at least 50%, 80% or 90% identity to SEQ ID NO: 1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicants claim a method of imparting water deficit tolerance to a crop plant by crossing any first transgenic crop plant that contains recombinant DNA which expresses a transcription factor having at least 50% identity to SEQ ID NO: 1.

Applicants teach a transgenic soybean plant with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA

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which expresses a transcription factor having the amino acid sequence of SEQ ID NO: 1 at page 12, lines 25-29.

Applicants do not teach transgenic plants with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA which expresses a transcription factor having at least 50%, 80% or 90% identity to SEQ ID NO: 1. Applicants do not teach monocot plants that contain recombinant DNA useful in the method as broadly claimed.

*Scope of enablement related to "a first transgenic crop plant":*

At pages 12-13 of the specification, Applicants teach a transgenic soybean plant with enhanced resistance and/or tolerance to water deficit as compared to wild type that contains recombinant DNA which expresses a transcription factor having the amino acid sequence of SEQ ID NO: 1, but transgenic corn that contains said recombinant DNA did not demonstrate "the water deficit tolerance trait. The Examiner presumes that the transgenic soybean and the transgenic corn plants were examined using the same "screening process for identification of the water deficit tolerance trait" at the time of Applicants' invention. The Paul Chomet Declaration filed under 37 CFR 1.132, filed on 23 May 2008, asserts that transgenic corn plants, transformed with a recombinant DNA which expresses SEQ ID NO: 1, do show the "water deficit tolerance trait". The Declaration teaches Field and Greenhouse screening. It appears that if one of skill in the art practices the instant invention using a monocot plant, such as corn, one would need to use a field screening process to identify the water deficit tolerance trait with any predictability. The instant specification does not teach one of skill in the art this

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distinction in "a screening process", hence the specification has not adequately enabled the full scope of the claims.

*Scope of enablement as related to a transcription factor having at least 50%, 80% or 90% identity to SEQ ID NO: 1:*

As directed the scope of the invention related to a first transgenic crop plant that contains recombinant DNA which expresses a transcription factor having at least 50%, 80% or 90% identity to SEQ ID NO: 1, the instant claims are directed to a method of experimentation. Instant SEQ ID NO: 1 had been exemplified in soybean as addressed above. The Declaration implies that instant SEQ ID NO: 2 (54.5% identity to SEQ ID NO: 1) will also produce a water deficit tolerance in a transgenic corn plant, but the asserted homologue G1067 (SEQ ID NO: 12) does not produce said water deficit tolerance in a transgenic corn plant. Applicants provide no evidence that SEQ ID NO: 3 (69.9% identity to SEQ ID NO: 1) has any use in the instant claimed method. Hence, it would have required undue trial and error experimentation by one of skill in the art at the time of Applicants to make and use the invention as broadly claimed.

### ***Conclusion***

9. This Office action is non-final in view of the new ground of rejection.

10. No claims are allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

/David H Kruse/  
Primary Examiner, Art Unit 1638  
29 January 2010